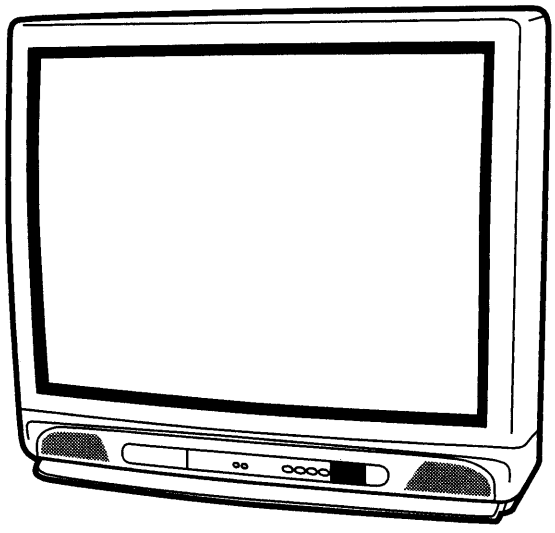
Colour Monitor Service Manual

Chassis: EC5-A

Original Manual



Give complete "SERVICE REF. NO." for parts order or servicing, it is shown on the rating sheet on the cabinet back of the TV set.

Note
This TV receiver will not work properly in foreign countries where the television transmission system and power source differ from the design specifications. Refer to the specifications for the design specifications

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SPECIFICATIONS

Power Source	AC220~240V 50Hz
Colour System	PAL
Scanning Freq.	15.625KHz / 50Hz
Resolution	300 TVL (BNC)
Input terminals	
Video IN	BNC connector
Audio IN	RCA connector
Output terminals	
Video OUT	BNC connector
Audio OUT	RCA connector
Speaker	8ohm, 5 x 9 cm
Sound output	3W (cont.)
Picture tube	70 cm diagonal, 110°
Visible picture	66 cm (diagonal)
Dimensions (W x H xD)	628 x 567x 469 mm
Weight	30.4 kg

Part No. SKSM0241 MAY 1998 F4ZVV

SAFETY PRECAUTION

1: An isolation transformer should be connected in the power line between the receiver and the AC line when a service is performed on the primary of the converter transformer of the set.
2: Comply with all caution and safety-related notes provided on the cabinet back, inside the cabinet, on the chassis or the picture tube.
3: When replacing a chassis in the cabinet, always be certain that all the protective devices are installed properly, such as, control knobs, adjustment covers or shields, barriers, isolation resistor-capacitor networks etc.Before returning any television to the customer, the service technician must be sure that it is completely safe to operate without danger of electrical shock.

X-RADIATION PRECAUTION

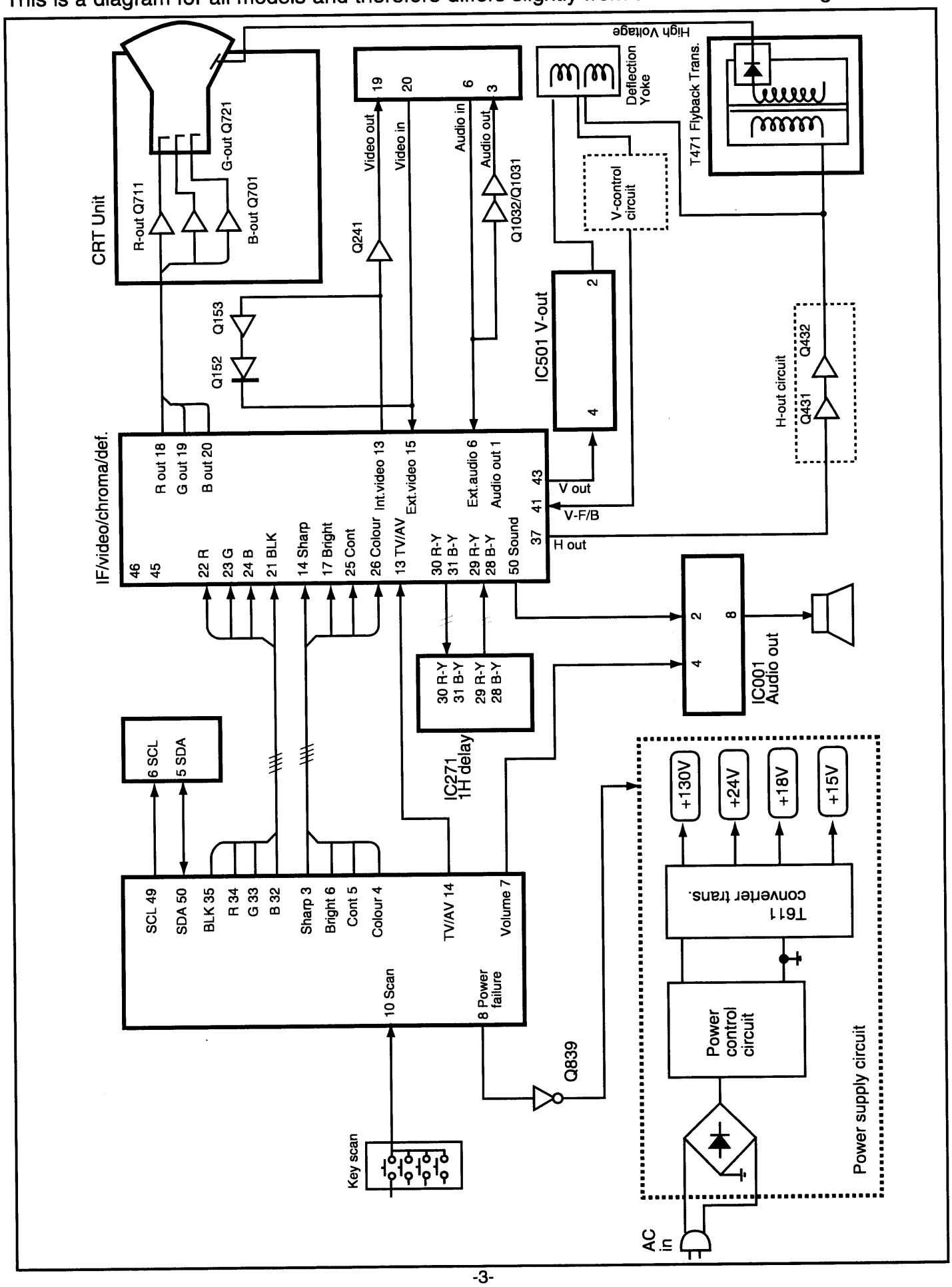
The primary source of X-RADIATION in the television receiver is the picture tube. The picture tube is specially constructed to limit X-RADIATION emissions. For continued X-RADIATION protection, the replacement tube must be the same type as the original including suffix letter. Excessive high voltage may produce potentially hazardous X-RADIATION. To avoid such hazards, the high voltage must be maintained within specified limit. Refer to this service manual, high voltage adjustment for specific high voltage limit. If high voltage exceeds specified limits, take necessary corrective action. Carefully follow the instructions for +B1 volt power supply adjustment, and high voltage adjustment to maintain the high voltage within the specified limits.

PRODUCT SAFETY NOTICE

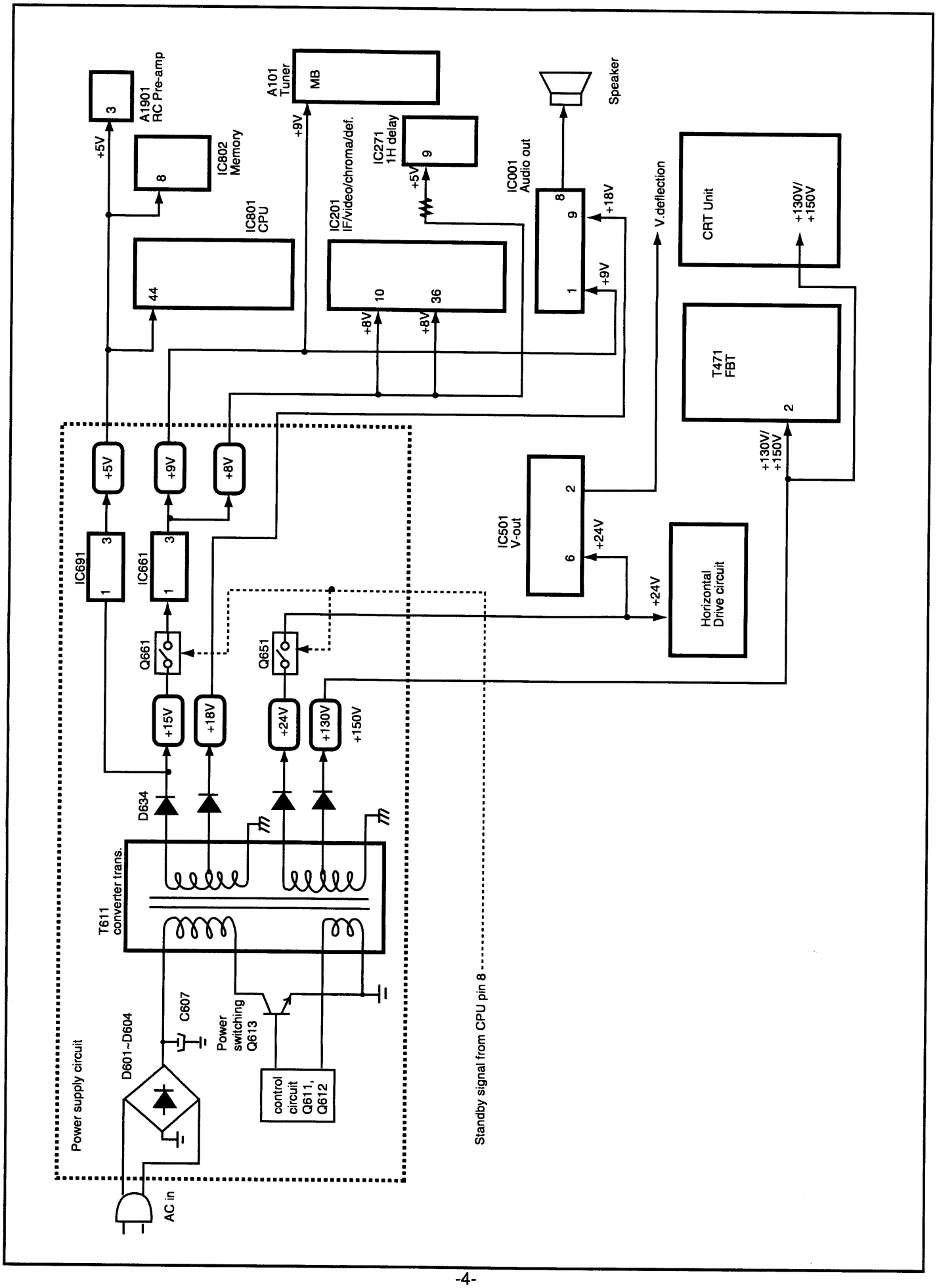
Product safety should be considered when a component replacement is made in any area of a receiver. Components indicated by mark /!\ in the parts list and the schematic diagram designate components in which safety can be of special significance. It is particularly recommended that only parts designated on the parts list in this manual be used for component replacement designated by mark /!\ . No deviations from resistance wattage or voltage ratings may be made for replacement items designated by mark /!\ .

BLOCK DIAGRAM (Main signal routing)

This is a diagram for all models and therefore differs slightly from the actual block diagram.



(Power supply routing)



CIRCUIT DESCRIPTION

1. POWER SUPPLY

The power supply circuit of the EC5-A chassis is composed of a rectifier smoothing circuit, an oscillation circuit, a control circuit and an output rectifier circuit. The AC input voltage is full-wave rectified by the rectifier smoothing circuit, and an unstable DC voltage is generated at both terminals of the smoothing capacitor C607. This voltage is input to the oscillation circuit. The oscillation circuit is provided with a blocking oscillator circuit that switches the switching transistor Q613 ON and OFF, and an oscillation frequency and a duty square wave pulse are generated in the input windings according to operation of the control circuit. A square-wave pulse whose size is dependent on the turn ratio of the input and output windings is obtained in the output winding. This is rectified in the output rectifier circuit, and the desired DC voltage is obtained.

2. VIDEO & DEFLECTION (TDA8361)

The video input feeds the video buffer stages Q152, Q153 and Q241 and out to video out via 75Ω. The video input is also fed to pin 15 of IC201 were it is used for vertical and horizontal sync stages. The horizontal oscillation pulse and input vertical sync. pulse are monitored by the trigger divider circuit, and switching 50Hz and 60Hz system, the vertical amplitude automatically adjusted for 50Hz and 60Hz. The output signal from the trigger divider is triggered vertical oscillation circuit consisting of C351, R356 and pin42, and vertical drive pulse is output from pin43. VR501 is for changing the amount of AC feedback applied to pin41 and for adjustment of the vertical amplitude.

3. VIDEO CHROMA & R.G.B. (TDA8361)

The external video signal input is supplied to pin15. The S-video signal input is separated to luminance (Y) signal and chroma signal in IC201. These pins are used in common with H/V-sync. separation input. The peaking of Y signal is adjusted by DC voltage of pin14. ("SHARPNESS" control) The chroma signal is divided into R-Y and B-Y chroma signals, demodulated in IC201, and output from pin30 (R-Y) and pin31 (B-Y). These chroma signals pass through the 1H delay line circuit (IC271), and they are input to pin29 (R-Y) and pin28 (B-Y). These R-Y/B-Y signals pass through RGB matrix circuit and RGB selector circuit of IC201. The internal RGB signals are generated in RGB matrix circuit and the RGB selector, consisting linear amplifiers, clamps and selects either the internal RGB signals or the external RGB signals input from pin22(R), pin23(G), pin24(B). Selection is controlled by the voltage at the RGB switch control (pin21) and mixed RGB modes are possible since RGB switching is fast. The RGB switch also functions as a fast blanking pin by blanking the RGB output stages. The colour gain is controlled by DC voltage of pin26. ("COLOUR" control) The contrast control voltage present at pin25, and the brightness control voltage present at pin17 controls DC level of RGB signals.

4. AUDIO OUTPUT(AN5265)

The audio signal output from pin52 of IC201 is input to pin2 of IC001 and passes through the pre-amplifier circuit and drive circuit, after which it is input to the audio amplifier. The audio amplifier is an SEPP (single-ended, push-pull) OTL type and output to pin8 to directly drive the speaker.

5. VERTICAL OUTPUT (LA7832/LA7833)

An IC (LA7832/LA7833) is used for the vertical output circuit in this chassis. The vertical drive pulse from pin43 of IC201 is input to pin4 of IC501. This pulse drives IC501, and vertical scanning is performed. In the first half of scanning a deflecting current is output from pin2 and passes through the following path:
Vcc(B4) → D501 → pin3 → pin2 → DY → C512 → VR501/R509. An electric charge is then stored in C512. In the last half of scanning the current path is C512 → DY → pin2 → pin1 → VR501/R509 → C512. In this way, an amplifying sawtooth waveform current flows directly to DY to perform electron beam defection. Next, in the first half of the banking period the vertical drive pulse suddenly becomes OFF, and in order to reduce the current flowing to DY, the current path becomes as follows by the inductance of DY:
DY → pin2 → pin1 → VR501/R509 → C512 → DY. Also, when the charge of DY has dissipated, the current path becomes Vcc24V → pin6 → pin7 → C502 → pin3 → pin2→ DY → C512 → VR501/R509, and when the prescribed current value is reached, the vertical drive pulse becomes ON. This completes one cycle.

6. HORIZONTAL OUTPUT

A horizontal oscillation signal is output from pin37 of IC201 and switches the drive transistor Q431. This switching signal is current amplified by the drive transformer T431 and drives the output transistor Q432. When Q432 becomes ON, an amplifying current flows directly to DY through C441/C442 → DY → Q432 → GND, and defection is performed in the last half of the scanning period. Next, when Q432 becomes OFF, the charge that had been stored in DY up to that point releases a resonance current to the resonant capacitors C421/C423 and charges them. The current stored in C421/C423 is then flowed back to DY, and an opposite charge is then stored in DY. This opposite charge then switches the dumper diode in Q432 ON, the resonance state is completed, and an amplifying current is then flowed again directly to DY through the dumper diode. By this means, deflection in the first half of the scanning period is performed, and when Q432 becomes ON at the end of the first half of the scanning period, deflection during the last half is begun, thus completing one cycle.

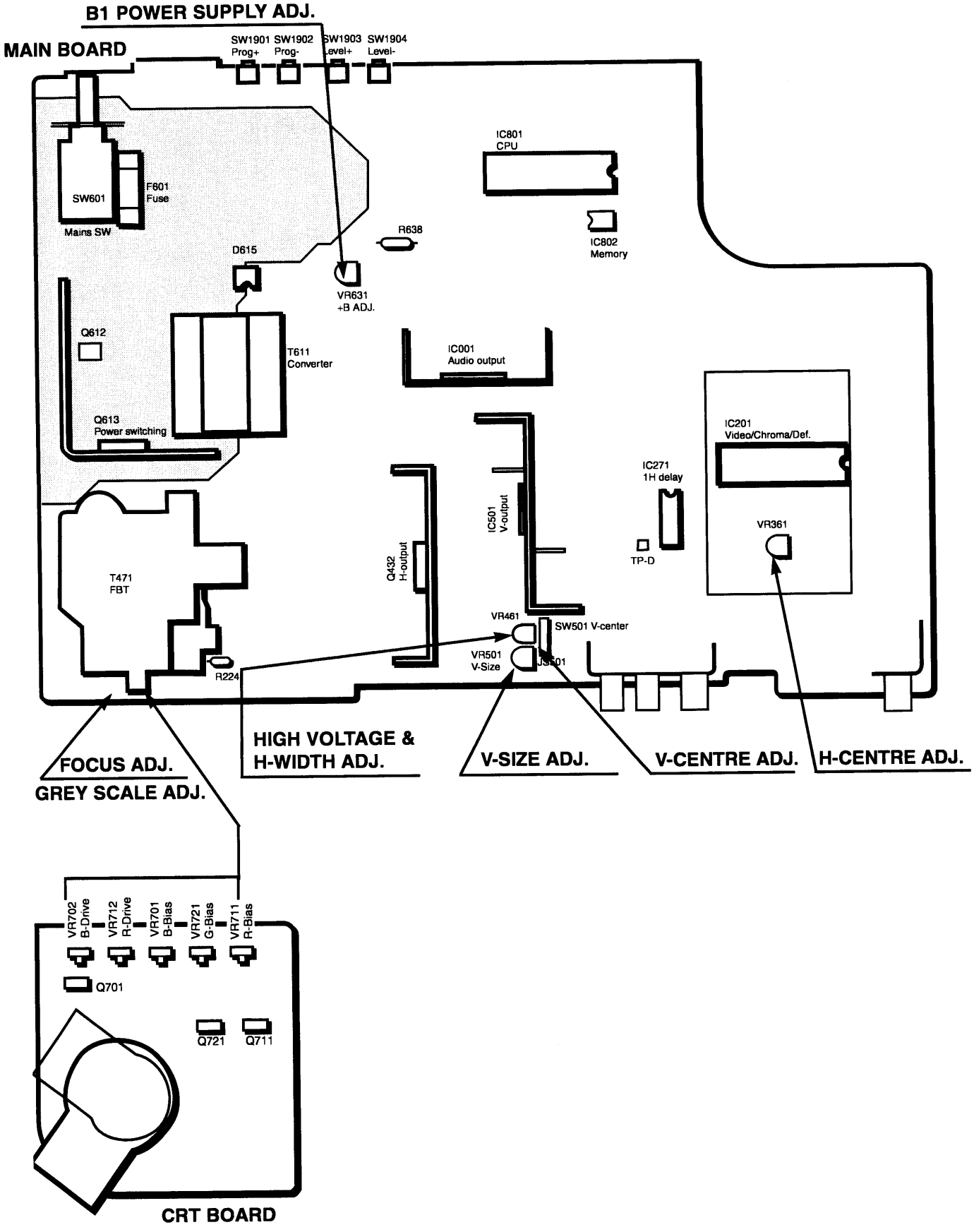
In the PCC circuit consisting of Q461 and Q462, the parabola signal supplied from the vertical circuit is added at the horizontal output stage and pincushion compensation is performed by varying the DC voltage bias. Further, the ABL voltage is feedback to the base of Q462 to compensate for width variations due to variations in the beam current.

7. CPU <System Control>

Pin description

Pin1:
Pin2: Band switch output 3 (UHF)
Pin3: Sharpness control output (6-bit DAC)
Pin4: Colour control output (6-bit DAC)
Pin5: Contrast control output(6-bit DAC)
Pin6: Brightness control output(6-bit DAC)
Pin7: Volume control output(6-bit DAC)
Pin8: Power FAILURE output (Power-On:Lo)
Pin9:
Pin10: Option SW1&Keyboard scan input (DC)
Pin11: Option SW2
Pin12: 50/60Hz switch input (50Hz: Hi)
Pin13: GND
Pin14:
Pin15:
Pin16:
Pin17:
Pin18:
Pin19:
Pin20: LED drive
Pin21: Ignore output
Pin22: GND
Pin23:
Pin24:
Pin25: Black
Pin26: IREF
Pin27:
Pin28: GND
Pin29: -
Pin30: V-deflection stop output(Stop:Lo)
Pin31: RGB REF
Pin32: Blue output for OSD
Pin33: Green output for OSD
Pin34: Red output for OSD
Pin35: Blanking output for OSD
Pin36: H-sync. input (Horizontal pulse for OSD)
Pin37: V-sync. input (Vertical pulse for OSD)
Pin38~39: Supply (+5V)
Pin 40: OSC GND
Pin 41: Oscillator input for CPU
Pin 42: Oscillator output for CPU
Pin 43: Reset input
Pin 44: Supply (+5V)
Pin 45: Protect signal input (L:Power circuit defects)
Pin 46: Ident. signal input
Pin 47: R/C signal input
Pin 48: Mute output in no picture
Pin 49: I²C bus SCL (Serial clock)
Pin 50: I²C bus SDA (Serial date)
Pin 51: -
Pin 52: -

SERVICE CONTROL ADJUSTMENT



B1 POWER SUPPLY ADJUSTMENT

1. Set VR631 to be mechanical centre before pressing the main switch.
2. Tune the receiver to PAL circular pattern.
3. Set brightness and contrast controls to normal.
4. Connect digital V-meter to the right side terminal of R638.
5. By using VR631, adjust voltage to 150 ± 0.5 V .

GREY SCALE ADJUSTMENT

[SCREEN VR ADJUSTMENT]

1. Tune the receiver to the white pattern.
2. Set brightness and contrast controls to normal.
3. Set VR702 and VR712 to be mechanical centre.
4. Turn VR701, VR711 and VR721 fully counter-clockwise.
5. Remove Video input.
6. Connect a short lead between pin30 of IC801 and GND to enter the service mode.
7. Set screen VR for one colour to be just visible.

[BIAS VR ADJUSTMENT]

8. By using VR701, VR711 or VR721, adjust line to be white.
9. Disconnect the short lead and replace the Video input.

[DRIVE VR ADJUSTMENT]

9. By using VR701 and VR711, adjust white balance.

HIGH VOLTAGE & WIDTH ADJUSTMENT

[HIGH VOLTAGE ADJUSTMENT]

1. Tune the receiver to circular pattern.
2. Set brightness and contrast controls to maximum.
3. Connect digital V-meter to both terminals of R224, and high voltage meter to CRT anode.
4. Confirm high voltage to be 26.0 ± 1 KV at beam current 1.4mA, and less than 29.0 KV at 0 beam current.

[H-WIDTH ADJUSTMENT]

5. Adjust VR462 to obtain correct H-Width.
6. Reconfirm high voltage.

H-CENTRE ADJUSTMENT

1. Tune the receiver to circular pattern.
2. Adjust H-centre by using VR361.

V-CENTRE ADJUSTMENT

1. Tune the receiver to circular pattern.
2. Adjust V-centre by using SW501.

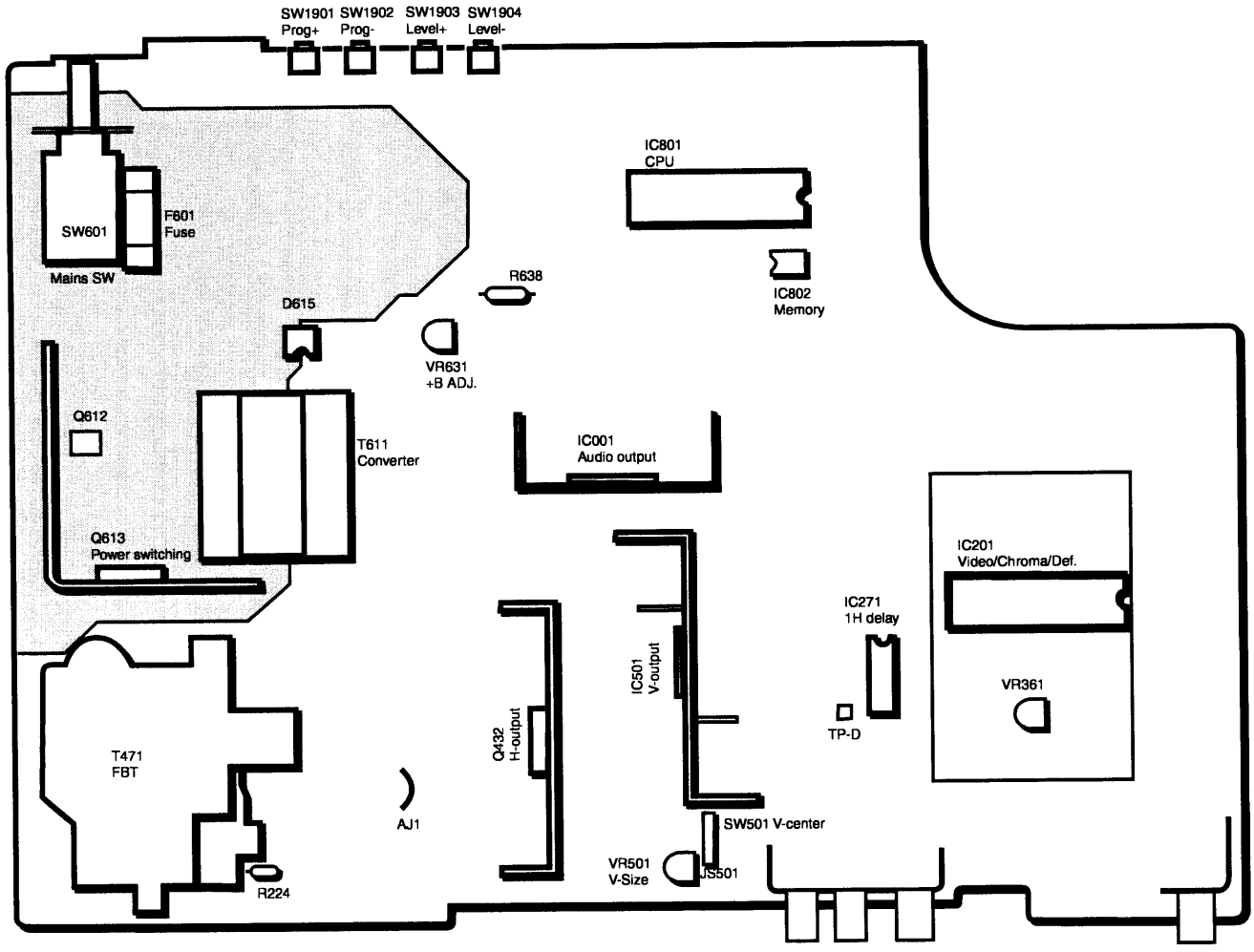
V-SIZE ADJUSTMENT

1. Tune the receiver to circular pattern.
2. Adjust V-size by using VR501.

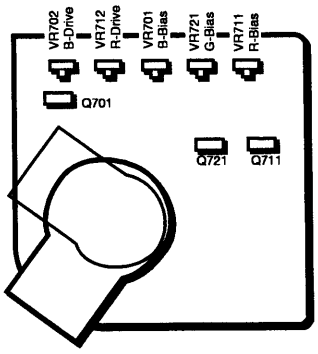
FOCUS ADJUSTMENT

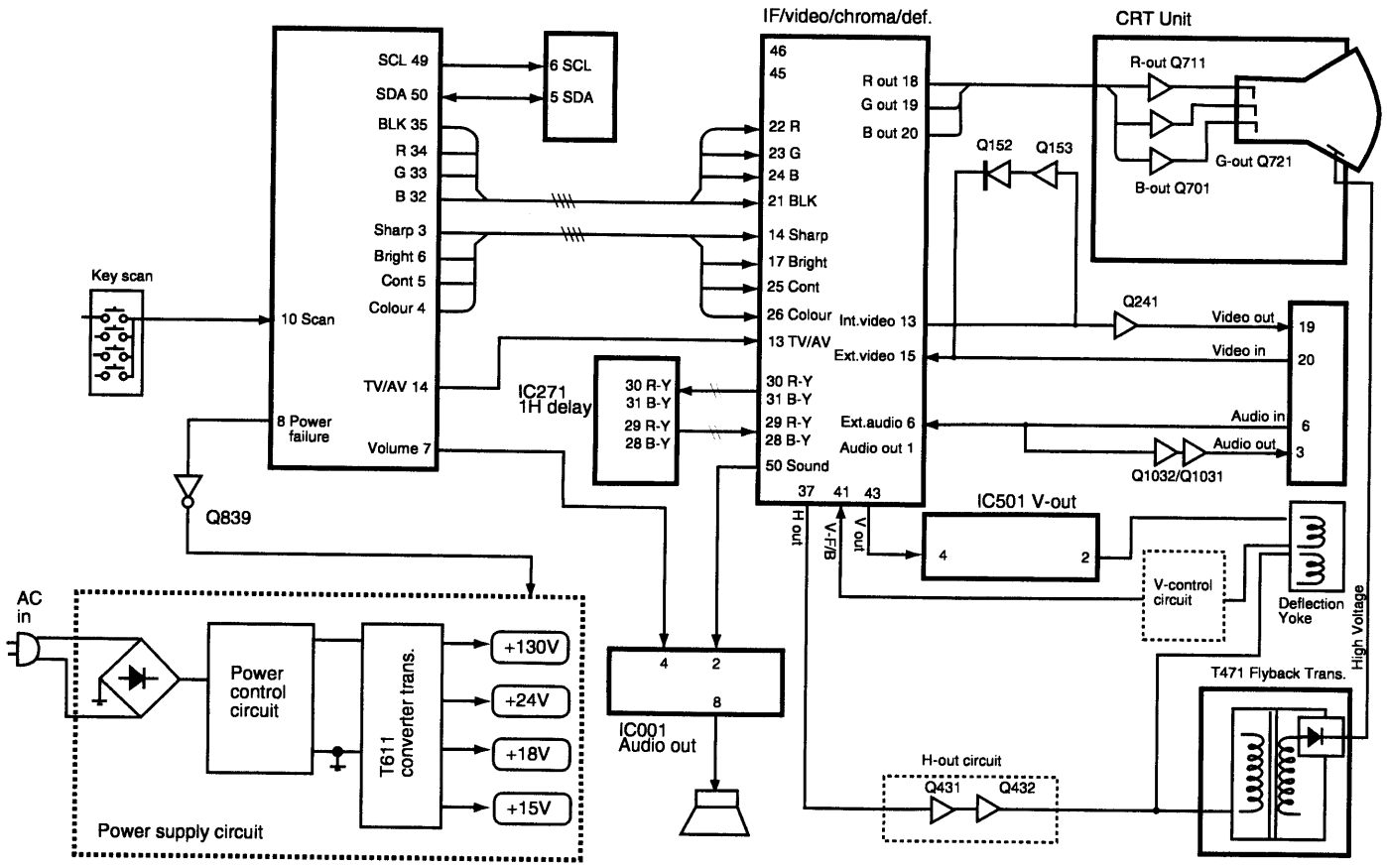
By using FOCUS VR, adjust focus control for good scanning lines.

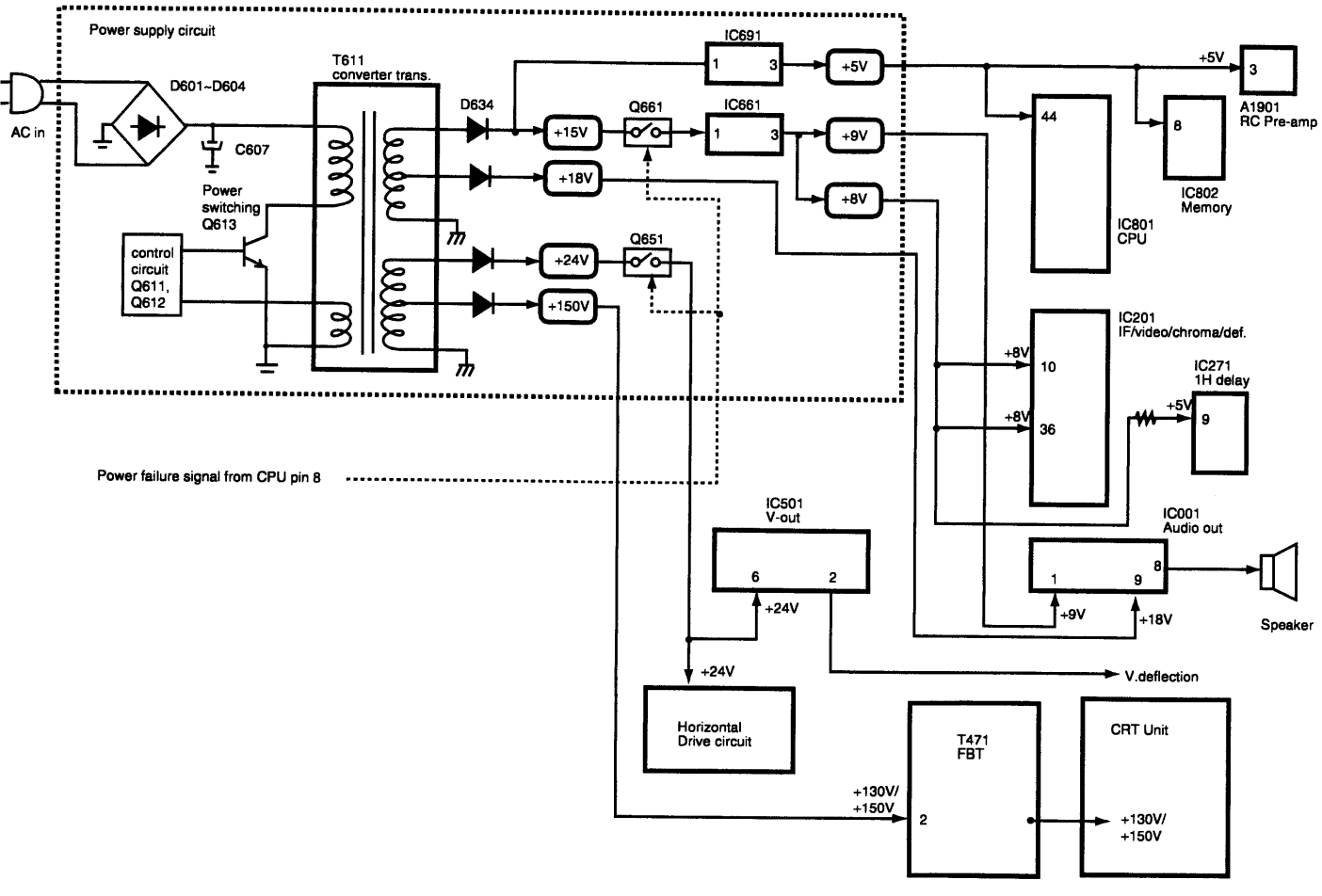
Main Board
Component Location

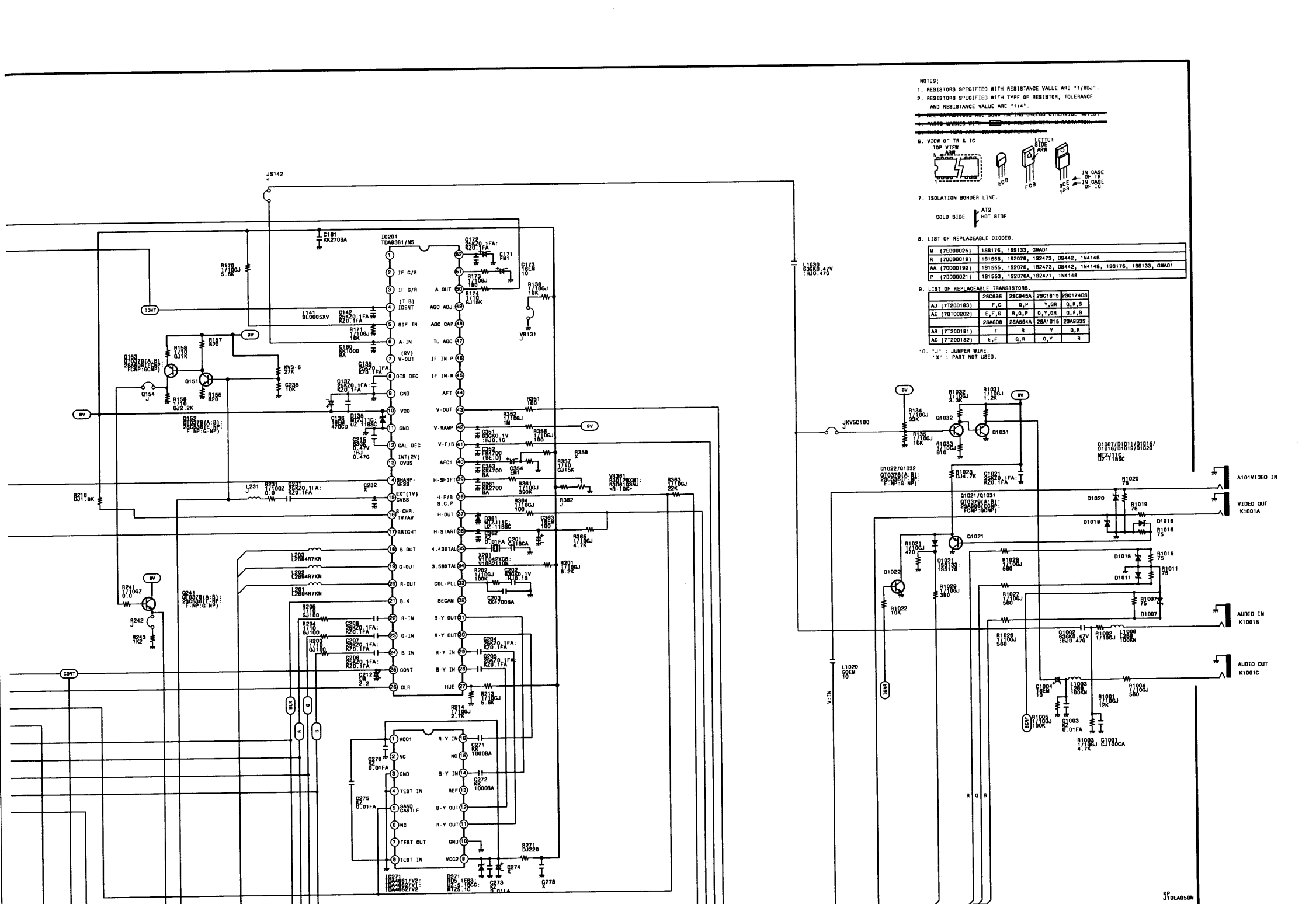


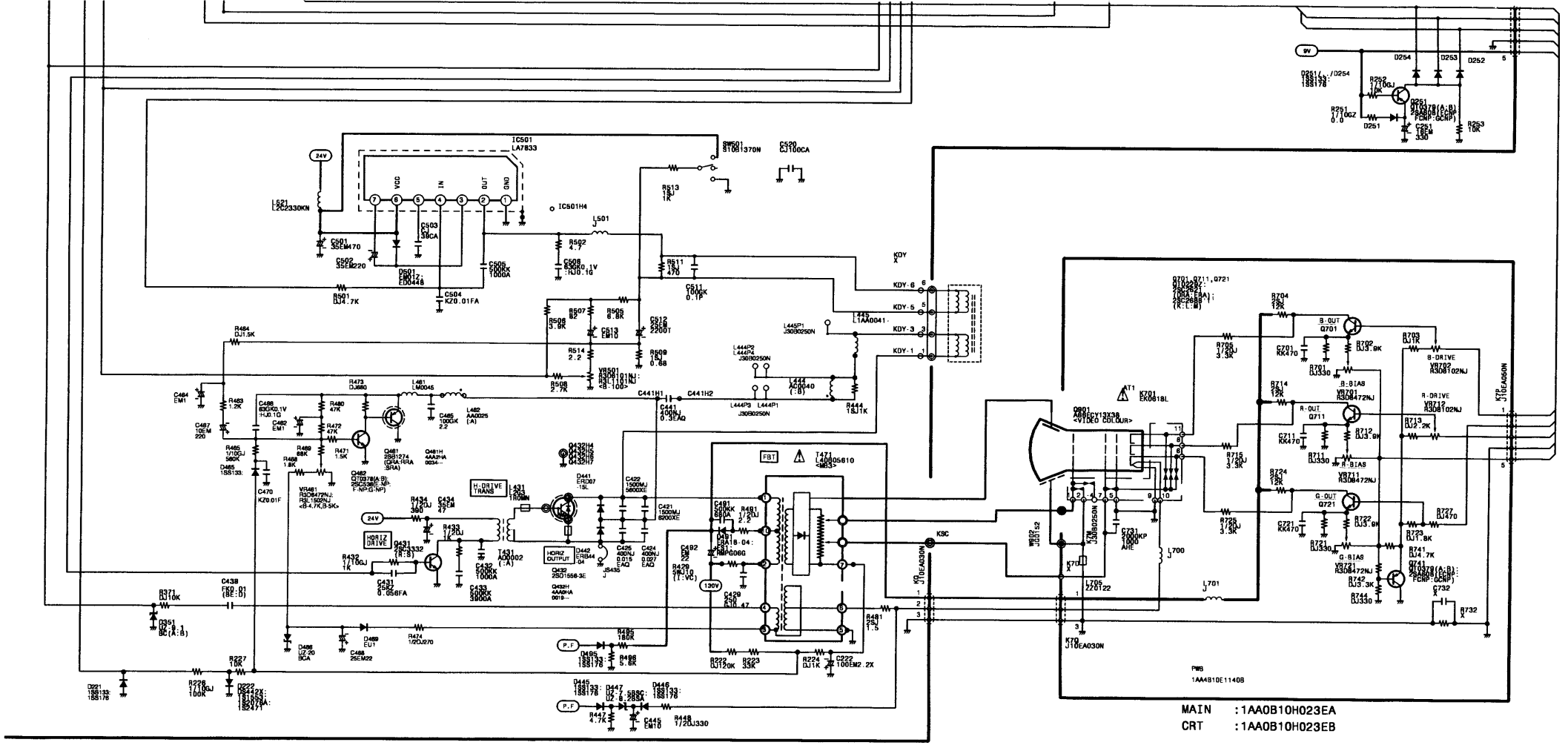
CRT Board
Component Location



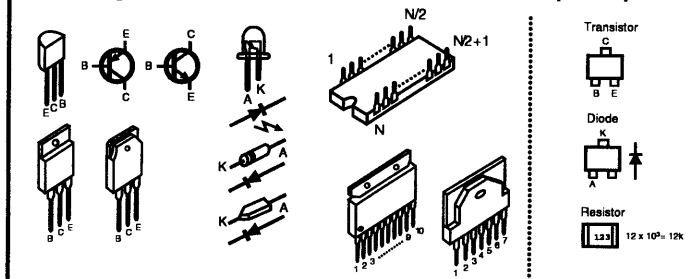

IF/video/chroma/def.
CRT Unit
SCL 49
SDA 50
BLK 35
R 34
G 33
B 32
Sharp 3
Bright 6
Cont 5
Colour 4
TV/AV 14
8 Power failure
Volume 7
10 Scan
Key scan
6 SCL
5 SDA
46
45
22 R
23 G
24 B
21 BLK
14 Sharp
17 Bright
25 Cont
26 Colour
13 TV/AV
30 R-Y
31 B-Y
29 R-Y
28 B-Y
50 Sound
R out 18
G out 19
B out 20
Int.video 13
Ext.video 15
Ext.audio 6
Audio out 1
37 41 43
H out
V-F/B
V out
IC271 1H delay
IC001 Audio out
IC501 V-out
Q839
Q152
Q153
R-out Q711
G-out Q721
B-out Q701
Q241
Video out
Video in
Audio in
Audio out
Q1032/Q1031
19
20
6
3
V-control circuit
Deflection Yoke
High Voltage
T471 Flyback Trans.
H-out circuit
Q431
Q432
AC in
Power control circuit
T611 converter trans.
+130V
+24V
+18V
+15V
Power supply circuit


Power supply circuit
AC in
D601~D604
C607
T611 converter trans.
D634
Power switching Q613
control circuit Q611, Q612
+15V
+18V
+24V
+150V
Q661
Q651
IC691
IC661
+5V
+9V
+8V
A1901 RC Pre-amp
IC802 Memory
IC801 CPU
IC201 IF/video/chroma/def.
IC271 1H delay
IC501 V-out
IC001 Audio out
Speaker
Power failure signal from CPU pin 8
Horizontal Drive circuit
V.deflection
T471 FBT
CRT Unit
+130V/ +150V


NOTES;
1. RESISTORS SPECIFIED WITH RESISTANCE VALUE ARE "1/8DJ".
2. RESISTORS SPECIFIED WITH TYPE OF RESISTOR, TOLERANCE AND RESISTANCE VALUE ARE "1/4".
6. VIEW OF TR & IC.
TOP VIEW
LETTER SIDE ARW
IN CASE OF TR
IN CASE OF IC
7. ISOLATION BORDER LINE.
COLD SIDE
HOT SIDE
8. LIST OF REPLACEABLE DIODES.
M (7ED00025) 1SS176, 1SS133, GMA01
R (7D000019) 1S1555, 1S2076, 1S2473, DS442, 1N4148
AA (7D000192) 1S1555, 1S2076, 1S2473, DS442, 1N4148, 1SS176, 1SS133, GMA01
P (7D000021) 1S1553, 1S2076A,1S2471, 1N4148
9. LIST OF REPLACEABLE TRANSISTORS.
2SC536 2SC945A 2SC1815 2SC1740S
AD (7T200183) F,G Q,P Y,GR Q,R,S
AE (7QT00202) E,F,G R,Q,P O,Y,GR Q,R,S
2SA608 2SA564A 2SA1015 2SA933S
AB (7T200181) F R Y Q,R
AC (7T200182) E,F Q,R O,Y R
10. "J" : JUMPER WIRE.
"X" : PART NOT USED.
IC201 TDA8361/N5
A101VIDEO IN
VIDEO OUT K1001A
AUDIO IN K1001B
AUDIO OUT K1001C
KP J1DEA050N



Terminal guide



C : Collector
B : Base
E : Emitter

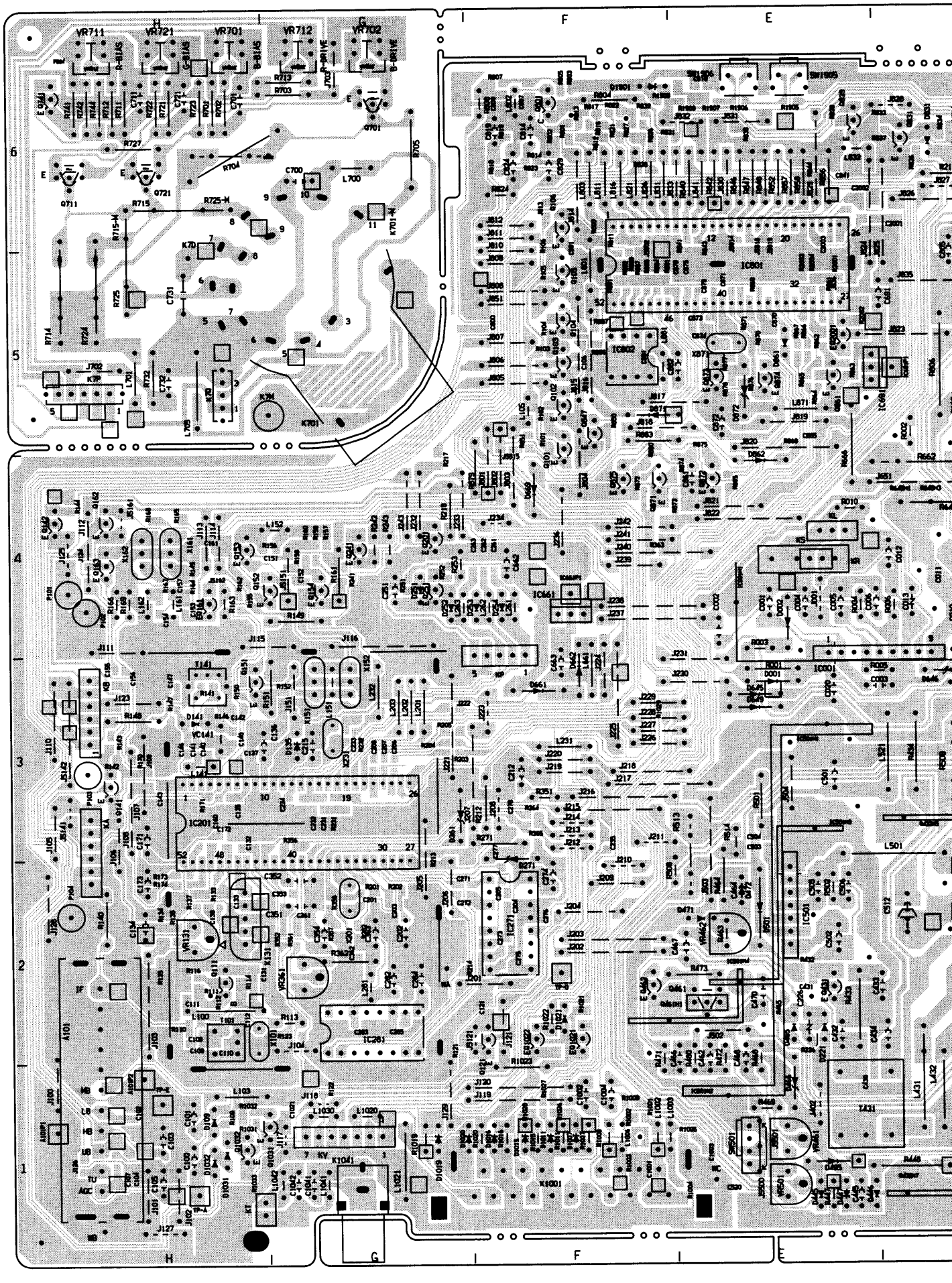
A : Anode
K : Kathode

Chip Components

Part No. SKP20163 F4ZVV (SHEET 2/2)

Main/CRT Board

Circuit side



DANGER-LIVE MAINS
D
C
B
A
VIDEO SCREEN ABL
DAIU (8) 10 7
MCL 10 7
MSL 10 13
PANA 10 14
MC31 10 14
T471
2(+B 130V)
1(H-OUT)
VR631
RL601
L601
C601
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C606
C607
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C612
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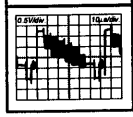
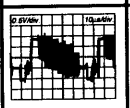
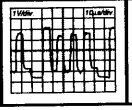
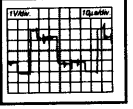
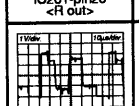
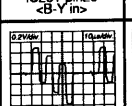
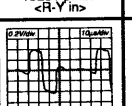
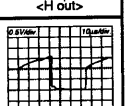
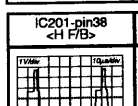
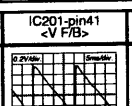
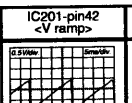
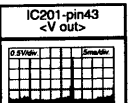
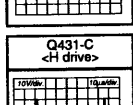
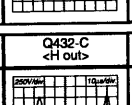
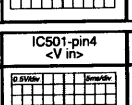
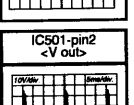
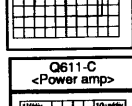
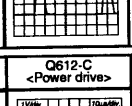
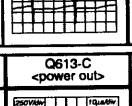
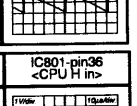
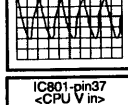
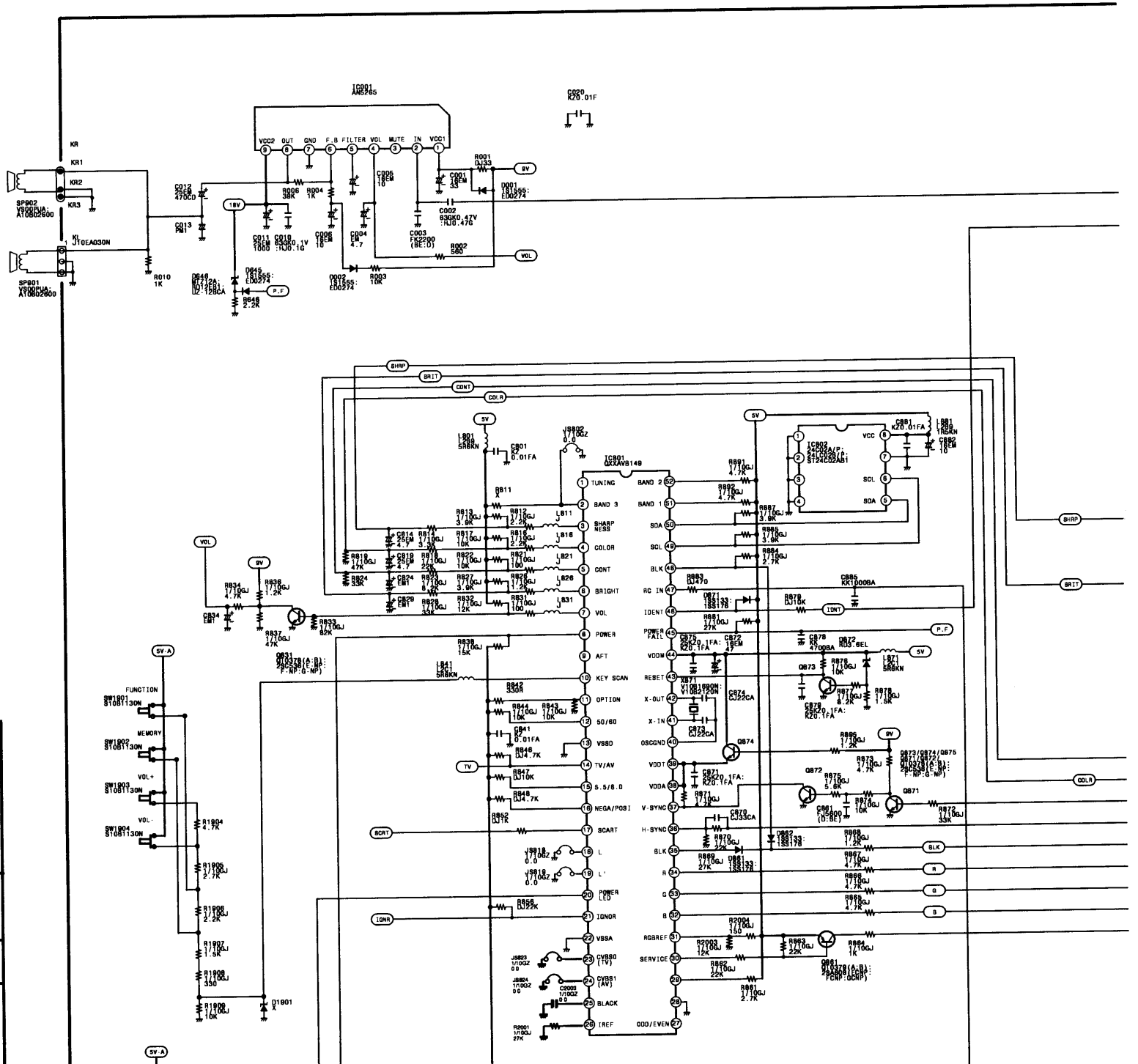
Waveforms on ICs and Transistors

IC201-pin7 <CVBS out>	IC201-pin15 <CVBS in>	IC201-pin18 <B out>	IC201-pin19 <G out>
			
IC201-pin20 <R out>	**IC201-pin28 <B-Y in>**	**IC201-pin29 <R-Y in>**	**IC201-pin37 <H out>**
			
IC201-pin38 <H F/B>	**IC201-pin41 <V F/B>**	**IC201-pin42 <V ramp>**	**IC201-pin43 <V out>**
			
Q431-C <H drive>	**Q432-C <H out>**	**IC501-pin4 <V in>**	**IC501-pin2 <V out>**
			
Q611-C <Power amp>	**Q612-C <Power drive>**	**Q613-C <power out>**	**IC801-pin36 <CPU H in>**
			
IC801-pin37 <CPU V in>			
			

Voltage on ICs

IC001													
1	1.6V	2	1.6V	3	15.5V	4	1.6V	5	1.6V	6	0V	7	-
8	13.8V	9	28.6V	10	14.0V	11	0V						
IC201													
1	3.1V	2	6.0V	3	6.0V	4	6.1V	5	0V	6	4.0V	7	3.1V
8	1.6V	9	0V	10	8.0V	11	0V	12	3.6V	13	4.4V	14	3.2V
15	3.9V	16	0V	17	3.4V	18	2.5V	19	2.5V	20	2.5V	21	0.2V
22	3.4V	23	3.4V	24	3.4V	25	2.9V	26	1.6V	27	5.9V	28	4.0V
29	4.0V	30	1.5V	31	1.5V	32	0V	33	4.9V	34	3.5V	35	2.6V
36	8.0V	37	0.9V	38	0.7V	39	3.0V	40	4.0V	41	2.5V	42	0V
43	0.8V	44	4.1V	45	4.1V	46	4.1V	47	7.0V	48	3.1V	49	1.6V
50	3.6V	51	4.3V	52	6.7V								
IC271													
1	5.3V	2	0V	3	0V	4	0V	5	0.7V	6	0V	7	0V
8	0V	9	5.2V	10	0V	11	3.1V	12	3.1V	13	0V	14	1.3V
15	0V	16	1.3V										
IC501													
1	0V	2	13.4V	3	25.3V	4	0.7V	5	0.7V	6	25.2V	7	2.1V
IC801													
1	0.6V	2	2.4V	3	3.7V	4	1.8V	5	2.1V	6	0V	7	0V
8	0V	9	2.6V	10	0.5V	11	2.5V	12	0V	13	0V	14	3.7V
15	0V	16	0V	17	0V	18	0V	19	0V	20	0V	21	0V
22	0V	23	2.2V	24	0.2V	25	2.0V	26	2.3V	27	0V	28	0V
29	5.0V	30	5.0V	31	5.0V	32	0V	33	0V	34	0V	35	0V



IC802													
1	0V	2	0V	3	0V	4	0V	5	4.8V	6	4.8V	7	0V
8	5.0V												

Voltage on Transistors

Q001		Q121		Q151	
E	0V	E	2.8V	E	3.8V
C	15.5V	C	8.0V	C	0V
B	0.1V	B	3.3V	B	3.2V

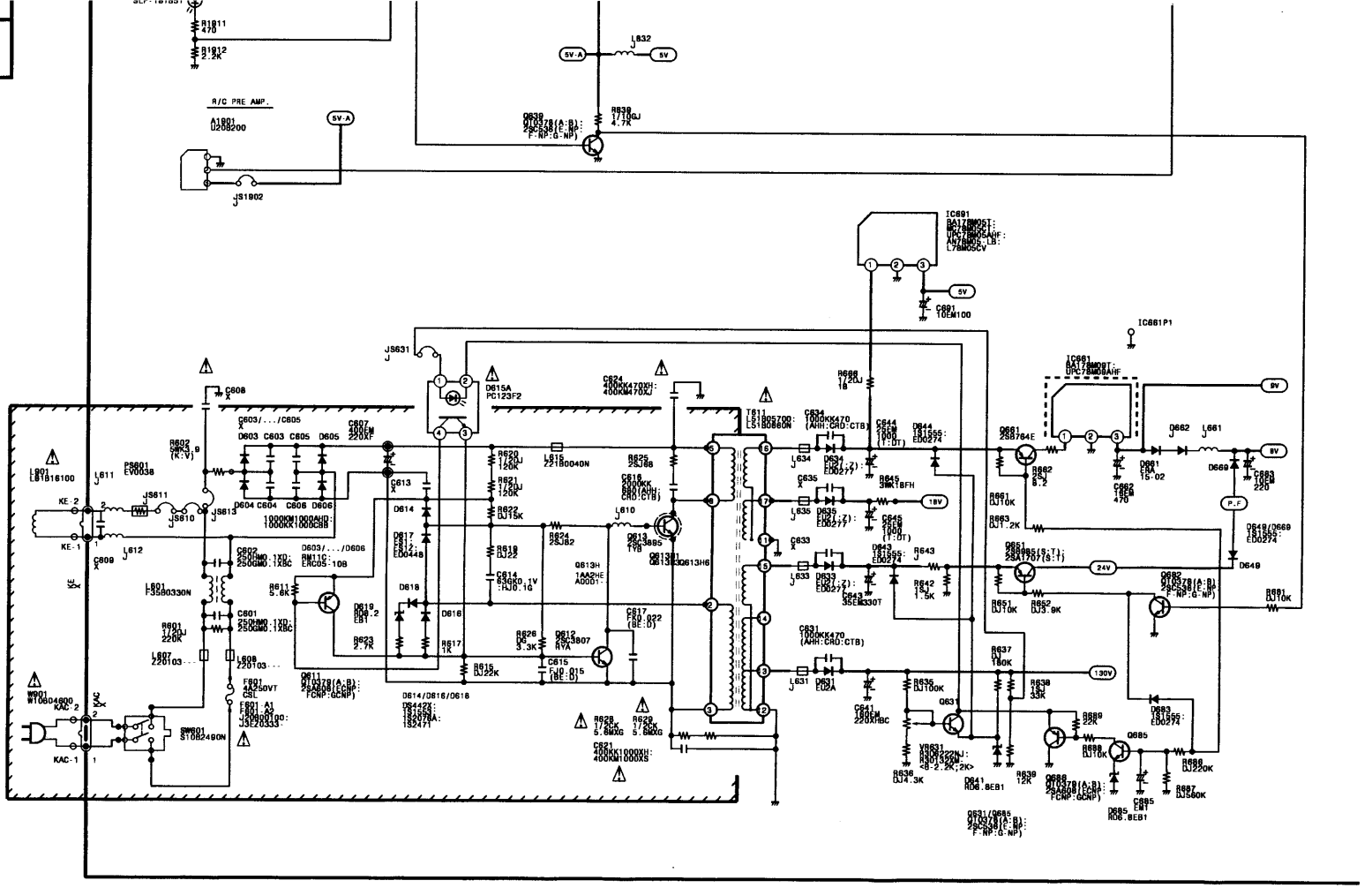
Q152		Q153		Q154	
E	3.2V	E	9.3V	E	3.1V
C	8.7V	C	2.3V	C	0V
B	0V	B	8.7V	B	2.4V

Q203		Q431		Q432	
E	0V	E	0V	E	0V
C	6.0V	C	10.8V	C	--
B	0V	B	0.3V	B	0V

Q611		Q612		Q613	
E	10.8V	E	0V	E	0V
C	-1.4V	C	-1.1V	C	--
B	10.5V	B	-1.4V	B	-1.1V

Q861		Q871		Q872	
E	5.0V	E	0V	E	0V
C	2.5V	C	6.3V	C	0.2V
B	5.0V	B	0.1V	B	0.6V

Q682		Q873		Q874	
E	5.0V	E	0V	E	4.9V
C	0.1V	C	0V	C	4.9V
B	5.6V	B	0.8V	B	5.6V



COLOUR MONITOR

VISTA

CHASSIS SERIES **EC5**

MODEL NUMBER **TV28**

SERVICE REF.NO. **TV28-01**

The service Precaution:
The area enclosed by this line (▰▰▰) is directly connected with AC mains voltage. When servicing the area, connect an isolating transformer between TV receiver and AC line to eliminate hazard of electric shock.

Product safety notice:
Product safety should be considered when a component replacement is made in any area of a receiver. Components indicated by a mark ⚠ in this circuit diagram show components whose values have special significance to product safety. It is particularly recommended that only parts specified on the part service manual be used for components replacement pointed out by the mark.

Circuit diagram notes :

1. All resistance values are in ohms, K=1,000, M=1,000,000.
2. All resistance rated wattages are 1/6W unless otherwise noted.
3. Excepting electrolytic capacitors, all capacitance values of less than 1 are expressed in μF and more than 1 are pF.
4. All capacitance rated voltages are 50V unless otherwise noted.
5. All inductance values are in μH.
6. Voltage readings taken a digital voltmeter are from point indicated chassis ground. Voltage readings taken by using a colour bar signal are with all controls at normal position. Some voltages may vary with signal strength.
7. Waveforms were taken with colour bar and controls adjusted for normal picture. Waveforms were taken by using a wide band oscilloscope and a low capacity probe.
8. This circuit diagram covers a basic or representative chassis only. There may be some components or partial circuit differences between the actual chassis and the circuit diagram.
9. ■ Diode 1S1555 may be replaced with 1S2473, 1S2076 or DS472 unless otherwise noted.
   ■ Transistor 2SC536(Q,R,S), 2SC1740(Q,R,S), 2SC945A(Q,R,P) or 2SC1815(G,O,Y) unless otherwise noted.
   ■ Transistor 2SA608(E,F) may be replaced with 2SA933(Q,R), 2SA564(QA,RA), or 2SA1015(O,Y) unless otherwise noted.

Expression of capacitance and resistance in circuit diagram.

Capacitance (Example)

1000 C M 2000 D

- D — Characteristic
- 2000 — Capacitance value (220pF)
- M — Tolerance (±20%)
- C — Kind(Ceramic)
- 1000 — Rated voltage (1,000V)

J= ± 5%
K= ± 10%
M= ± 20%

T, A, U, D : Electrolytic
C, K, B : Ceramic
F : Mylar film
M, N : Polypropylene
Z : Metallized paper

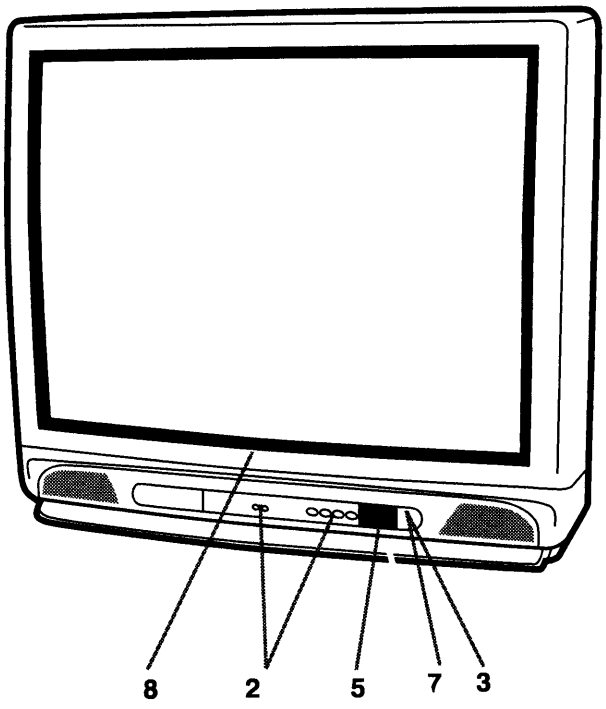
Resistance (Example)

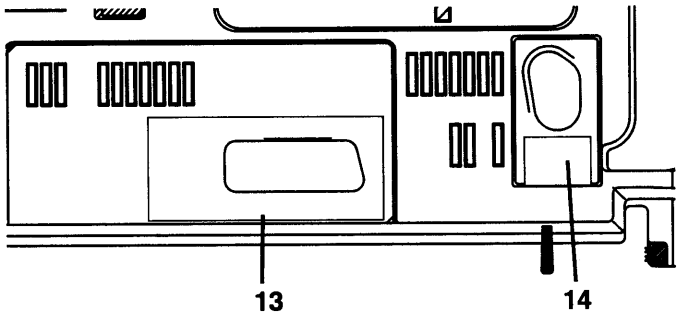
1/2 N J 1.2

- 1.2 — Resistance value (1.2Ω)
- J — Tolerance (±5%)
- N — Kind (M.carbon)
- 1/2 — Rated wattage(1/2W)

D : Carbon
N : Metallized carbon
S : Oxide metallized
W : Wire wounding
C : Solid

CABINET PARTS LIST





Ref. No.	Part No.	Description
CABINET PARTS		
1	610 267 0868	ASSY,CABINET FR-F4ZS
2	610 266 1811	BTN UNIT-F2ZE-A
3	610 267 1155	BUTTON POWER-F4ZC
4	610 262 2089	CABINET BACK-B-E6ZV
5	610 263 9292	DEC BOARD-E8YB
6	610 253 2449	HOLDER AC CORD-GBR-D4VA
7	610 261 3032	SPRING-E7GC
8	650 273 6959	VISTA BADGE
9	411 076 1400	SCREW TPG 4 X 14
10	412 009 3003	CRT SCREW 6 X 30
11	610 224 5721	CRT CUSHION-B3MY-UK
12	610 265 4202	HOLDER DC GBR-F3SC
13	650 273 7086	DEC SHEET REAR-F4ZV
14	650 273 7141	REAR DEC SHEET B-F2TC

CHASSIS ELECTRICAL PARTS LIST

⚠

Product safety should be considered when a component replacement is made in any area of a receiver. Components indicated by a ⚠ mark in this parts list and the circuit diagram show components whose value have special significance to product safety. It is particularly recommended that only parts specified on the following parts list be used for components replacement pointed out by the mark.

Note: Parts order must contain Service Ref. No., Part No., and descriptions.

Ref. No.	Part No.	Description

Read description in the Capacitor and Resistor as follows:

CAPACITOR

CERAMIC 100P K 50V

- CERAMIC — Material
- 100P — Rated value: P=pico farad, U=Micro farad
- K — Tolerance Symbols:

  Less than 10PF

  A: Not specified B: ±0.1PF C: ±0.25PF
  D: ±0.5PF F: ±1PF G: ±2PF
  R: ±0.25-0PF S: ±0-0.25PF E: +0-1PF

  More than 10PF

  A: Not specified B: ±0.1% C: ±0.25%
  D: ±0.5% F: ±1% G: ±2%
  H: ±3% J: ±5% K: ±10%
  L: ±15% M: ±20% N: ±30%
  P: +100-0% Q: +30-10% T: +50-10%
  U: +75-10% V: +20-10% W: +100-10%
  X: +40-20% Y: +150-10% Z: +80-20%
- 50V — Rated Voltage

Material:

CERAMIC..... Ceramic
MT-PAPER..... Metallized Paper
POLYESTER..... Polyester
MT-POLYEST.... Metallized Polyester
POLYPRO..... Polypropylene
MT-POLYPRO.... Metallized Polypropylene
COMPO FILM..... Composite film
MT-COMPO..... Metallized Composite
STYRENE..... Styrene
TA-SOLID..... Tantalum Solid
AL-SOLID..... Aluminium Solid
ELECT..... Electrolytic
NP-ELECT..... Non-polarised Electrolytic
OS-SOLID..... Aluminium Solid with Organic Semiconductive Electrolytic
DL-ELECT..... Double Layered Electrolytic

RESISTOR

CARBON 4.7K J A 1/4W

- CARBON — Material
- 4.7K — Rated value, ohms: K: 1,000, M: 1,000,000
- J — Tolerance Symbols:

  A: ±0.05% B: ±0.1% C: ±0.25% D: ±0.5%
  F: ±1% G: ±2% J: ±5% K: ±10%
  M: ±20% P: +5-15%
- A — Performance Symbols:

  A: General B: Non flammable Z: Low noise
  Other: Temperature coefficient
- 1/4W — Rated Wattage

Material:

CARBON..... Carbon
MT-FILM..... Metal Film
OXIDE-MT..... Oxide Metal Film
SOLID..... Composition
MT-GLAZE..... Metal Glaze
WIRE WOUND... Wire Wound
CERAMIC RES.. Ceramic
FUSIBLE RES.... Fusible

Ref. No.	Part No.	Description

SERVICE REF. No.

OUT OF CIRCUIT BOARD

PICTURE TUBE

⚠Q901	414 007 1203	CRT A66ECY13X38

COIL

⚠L901	645 025 6523	28DEG.COIL OREGA 47320235

MISCELLANEOUS

SP901	610 233 8409	SPEAKER 16OHM
SP902	610 233 8409	SPEAKER 16OHM
⚠W901	645 011 8838	3P AC CORD + 2P HOUSE @ 2
W902	610 204 6090	GROUNDING CONNECTOR-D8ZL

ASSY,PWB,MAIN F4ZWV 1AA0B10H023EA

TRANSISTOR

Q1021	406 007 1901	TR JC556A
Q1022	406 007 2106	TR JC546A
Q1031	406 007 1901	TR JC556A
Q1032	406 007 2106	TR JC546A
Q152	406 007 2106	TR JC546A
Q153	406 007 1901	TR JC556A
Q241	406 007 2106	TR JC546A
Q251	406 007 1901	TR JC556A
Q431	405 018 0616	TR 2SC3332-S
Q432	405 095 0209	TR 2SD1556-3E
Q432H	610 252 1108	H HEAT SINK E7LC
Q461	405 064 7307	TR 2SB1274-Q-RA
Q461H	610 251 5916	HEAT SINK PCC E7LC
Q462	406 007 2106	TR JC546A
Q611	406 007 1901	TR JC556A
Q612	405 058 0208	TR 2SC3807-R-CTV-YA
Q613	405 018 9203	TR 2SC3895-T-CTV-YB
Q613H	610 256 1210	ASSY HEATSINK POWER-E8JE
Q631	406 007 2106	TR JC546A
Q651	405 009 7003	TR 2SB985-T
Q661	405 008 4805	TR 2SB764-E
Q682	406 007 2106	TR JC546A
Q685	406 007 2106	TR JC546A
Q686	406 007 1901	TR JC556A
Q831	406 007 2106	TR JC546A
Q839	406 007 2106	TR JC546A
Q861	406 007 1901	TR JC556A
Q871	406 007 2106	TR JC546A
Q872	406 007 2106	TR JC546A
Q873	406 007 2106	TR JC546A
Q874	406 007 2106	TR JC546A

INTEGRATED CIRCUIT

IC001	409 073 1509	IC AN5265

Ref. No.	Part No.	Description
IC201	409 380 8703	IC TDA8361/N5
IC271	409 404 0201	IC U3665M
IC501	409 192 5709	IC LA7833
IC501H	610 251 8153	VERTICAL RADIATOR-E7PC
IC661	409 367 2809	IC BA178M09T
IC661H	610 266 2542	HEAT SINK F2TC F9-4-186E
IC661P1	645 008 4058	TERMINAL PLUG
IC691	409 241 5407	IC BA178M05T
IC801	410 298 4206	IC SAA5288PS/003
IC802	409 333 3700	IC 24LC02B/P

CAPACITOR

C001	403 043 3906	ELECT 33U M 16V
C002	403 067 7895	MT-COMPO 0.47 J 50V
C003	403 179 2715	POLYESTER 2200P J 50V
C004	403 051 0607	ELECT 4.7U M 50V
C005	403 049 4204	ELECT 10U M 50V
C006	403 049 4204	ELECT 10U M 50V
C010	403 237 8057	MT-COMPO 0.1U J 50V
C011	403 045 1504	ELECT 1000U M 25V
C012	403 047 5005	ELECT 470U M 25V
C013	403 086 2300	NP-ELECT 1U M 50V
C020	403 069 8315	CERAMIC 0.01U Z 50V
C1001	403 009 5718	CERAMIC 100P J 50V
C1002	403 067 7895	MT-COMPO 0.47 J 50V
C1003	403 069 9510	CERAMIC CHIP 0.01 Z 50V
C1004	403 049 4204	ELECT 10U M 50V
C1021	403 068 0419	CERAMIC 0.1U Z 25V
C135	403 068 0419	CERAMIC 0.1U Z 25V
C136	403 194 4609	ELECT 470U M 16V
C137	403 068 0419	CERAMIC 0.1U Z 25V
C142	403 068 0419	CERAMIC 0.1U Z 25V
C160	403 069 1712	CERAMIC 1000P K 50V
C161	403 072 5011	CERAMIC 270P K 50V
C171	403 049 0008	ELECT 1U M 50V
C172	403 068 0419	CERAMIC 0.1U Z 25V
C173	403 049 4204	ELECT 10U M 50V
C2003	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
C201	403 014 3419	CERAMIC 18P J 50V
C202	403 237 8057	MT-COMPO 0.1U J 50V
C203	403 073 9117	CERAMIC 4700P K 50V
C204	403 068 0419	CERAMIC 0.1U Z 25V
C205	403 068 0419	CERAMIC 0.1U Z 25V
C206	403 068 0419	CERAMIC 0.1U Z 25V
C207	403 068 0419	CERAMIC 0.1U Z 25V
C208	403 068 0419	CERAMIC 0.1U Z 25V
C212	403 049 9803	ELECT 2.2U M 50V
C215	403 067 7895	MT-COMPO 0.47 J 50V
C222	403 119 1409	ELECT 2.2U M 100V
C231	403 068 0419	CERAMIC 0.1U Z 25V
C235	401 037 5618	MT-GLAZE 10K JA 1/10W
C251	403 043 6006	ELECT 330U M 16V
C271	403 069 1712	CERAMIC 1000P K 50V
C272	403 069 1712	CERAMIC 1000P K 50V
C273	403 069 9510	CERAMIC CHIP 0.01 Z 50V
C275	403 069 9510	CERAMIC CHIP 0.01 Z 50V
C276	403 069 9510	CERAMIC CHIP 0.01 Z 50V
C351	403 237 8057	MT-COMPO 0.1U J 50V
C352	403 179 1213	POLYESTER 4700P J 50V
C353	403 073 9117	CERAMIC 4700P K 50V
C354	403 049 0008	ELECT 1U M 50V
C361	403 072 5615	CERAMIC 2700P K 50V
C362	403 069 9510	CERAMIC CHIP 0.01 Z 50V
C363	403 042 2405	ELECT 100U M 16V
⚠ C421	404 046 8806	MT-POLYPRO 6200P J 1.5K
C422	404 040 8109	MT-POLYPRO 5600P J 1.5K
C424	403 299 3210	POLYPRO 0.027U J 400V
C425	403 299 3012	POLYPRO 0.015U J 400V
C429	403 066 6116	MT-POLYEST 0.47U J 250V
C431	403 068 5612	CERAMIC 0.056U Z 25V
C432	403 075 7111	CERAMIC 1000P K 500V
C433	403 076 3112	CERAMIC 3900P K 500V
C434	403 054 0703	ELECT 47U M 35V
C438	403 179 3811	POLYESTER 0.01U K 50V
⚠ C441	403 309 2100	POLYPRO 0.3U J 400V
C445	403 049 4204	ELECT 10U M 50V
C462	403 049 0008	ELECT 1U M 50V
C464	403 049 0008	ELECT 1U M 50V
C465	403 066 0104	MT-POLYEST 2.2U K 100V
C466	403 237 8057	MT-COMPO 0.1U J 50V
C467	403 040 3701	ELECT 220U M 10V
C468	403 045 5809	ELECT 22U M 50V
C470	403 069 8305	CERAMIC 0.01U Z 50V
C491	403 076 5314	CERAMIC 680P K 500V
C492	403 115 0802	ELECT 22U M 100V
C501	403 054 1502	ELECT 470U M 35V
C502	403 217 1103	ELECT 220U M 35V
C503	403 024 2112	CERAMIC 39P J 50V
C504	403 069 9510	CERAMIC CHIP 0.01Z 50V
C505	403 075 7111	CERAMIC 1000P K 500V
C506	403 188 0907	MT-POLYEST 0.22U K 100V
C511	403 183 7901	MT-POLYEST 0.1U K 100V
C512	403 110 1735	ELECT 2200U M 25V
C513	403 049 4204	ELECT 10U M 50V
C520	403 009 5718	CERAMIC 100P J 50V
C601	404 060 7205	MT-POLYEST 0.1U M 250V
C602	404 060 7205	MT-POLYEST 0.1U M 250V
C606	403 076 7130	CERAMIC 1000P M 1K
C607	404 044 5005	ELECT 220U M 400V
C614	403 237 8057	MT-COMPO 0.1U J 50V
C615	403 179 3217	POLYESTER 0.015U J 50V
C616	403 165 8427	CERAMIC 680P K 2K
C617	403 179 2418	POLYESTER 0.022U K 50V
C621	404 073 3904	CER 1000P M KX 250V
C624	404 073 5106	CER 470P M KX 250V
C631	403 165 6126	CERAMIC 470P K 1K
C634	403 165 6126	CERAMIC 470P K 1K
C641	404 055 9801	ELECT 220U M 200V
C643	403 148 1906	ELECT 330U M 35V
C644	403 148 0404	ELECT 1000U M 25V
C645	403 148 0404	ELECT 1000U M 25V
C662	403 194 4609	ELECT 470U M 16V
C663	403 040 3701	ELECT 220U M 10V
C685	403 049 0008	ELECT 1U M 50V
C691	403 039 6508	ELECT 100U M 10V
C801	403 069 9510	CERAMIC CHIP 0.01 Z 50V
C814	403 051 0607	ELECT 4.7U M 50V
C819	403 051 0607	ELECT 4.7U M 50V
C824	403 049 0008	ELECT 1U M 50V
C829	403 049 0008	ELECT 1U M 50V
C834	403 049 0008	ELECT 1U M 50V
C841	403 069 9510	CERAMIC CHIP 0.01 Z 50V
C861	403 179 0810	POLYESTER 0.0056U J 50V
C870	403 022 8215	CERAMIC 33P J 50V
C871	403 068 0419	CERAMIC 0.1U Z 25V
C872	403 043 9106	ELECT 47U M 16V
C873	403 018 0513	CERAMIC 22P J 50V
C874	403 018 0513	CERAMIC 22P J 50V
C875	403 068 0419	CERAMIC 0.1U Z 25V
C878	403 073 9117	CERAMIC 4700P K 50V
C879	403 068 0419	CERAMIC 0.1U Z 25V
C881	403 069 9510	CERAMIC CHIP 0.01Z 50V
C882	403 049 4204	ELECT 10U M 50V
C885	403 069 1712	CERAMIC 1000P K 50V

RESISTOR

R001	401 018 1645	CARBON 33 JA 1/4W
R002	401 027 2323	CARBON 560 JA 1/6W
R003	401 024 7430	CARBON 10K JA 1/6W
R004	401 024 7024	CARBON 1K JA 1/6W
R006	401 024 7430	CARBON 10K JA 1/6W
R010	401 024 7024	CARBON 1K JA 1/6W
R1002	401 037 6813	MT-GLAZE 12K JA 1/10W
R1003	401 038 6515	MT-GLAZE 47K JA 1/10W

Ref. No.	Part No.	Description			
R1004	401 038 7611	MT-GLAZE	560	JA	1/10W
R1005	401 037 5717	MT-GLAZE	100K	JA	1/10W
R1007	401 027 6628	CARBON	75	JA	1/6W
R1009	401 038 2210	MT-GLAZE	27K	JA	1/10W
R1011	401 027 6628	CARBON	75	JA	1/6W
R1015	401 027 6628	CARBON	75	JA	1/6W
R1016	401 027 6628	CARBON	75	JA	1/6W
R1019	401 027 6628	CARBON	75	JA	1/6W
R1020	401 027 6628	CARBON	75	JA	1/6W
R1021	401 038 6317	MT-GLAZE	470	JA	1/10W
R1022	401 024 7430	CARBON	10K	JA	1/6W
R1023	401 020 2053	CARBON	4.7K	JA	1/4W
R1026	401 038 7611	MT-GLAZE	560	JA	1/10W
R1027	401 038 7611	MT-GLAZE	560	JA	1/10W
R1028	401 038 7611	MT-GLAZE	560	JA	1/10W
R1029	401 038 5013	MT-GLAZE	390	JA	1/10W
R1031	401 037 6714	MT-GLAZE	1.2K	JA	1/10W
R1032	401 038 3613	MT-GLAZE	3.3K	JA	1/10W
R1033	401 039 0918	MT-GLAZE	910	JA	1/10W
R109	401 037 5014	MT-GLAZE	0.000	ZA	1/10W
R134	401 038 3712	MT-GLAZE	33K	JA	1/10W
R135	401 037 5618	MT-GLAZE	10K	JA	1/10W
R138	401 037 5618	MT-GLAZE	10K	JA	1/10W
R155	401 039 0314	MT-GLAZE	820	JA	1/10W
R157	401 039 0314	MT-GLAZE	820	JA	1/10W
R158	401 037 5410	MT-GLAZE	1K	JA	1/10W
R159	401 038 0711	MT-GLAZE	2.2K	JA	1/10W
R160	401 037 5014	MT-GLAZE	0.000	ZA	1/10W
R170	401 038 7710	MT-GLAZE	5.6K	JA	1/10W
R171	401 037 5618	MT-GLAZE	10K	JA	1/10W
R173	401 037 5014	MT-GLAZE	0.000	ZA	1/10W
R174	401 037 8015	MT-GLAZE	15K	JA	1/10W
R1904	401 026 9927	CARBON	4K7	JA	1/6W
R1905	401 038 2111	MT-GLAZE	2.7K	JA	1/10W
R1906	401 038 0711	MT-GLAZE	2.2K	JA	1/10W
R1907	401 037 7919	MT-GLAZE	1.5K	JA	1/10W
R1908	401 038 3514	MT-GLAZE	330	JA	1/10W
R1909	401 037 5618	MT-GLAZE	10K	JA	1/10W
R1911	401 026 9620	CARBON	470	JA	1/6W
R1912	401 025 7825	CARBON	2K2	JA	1/6W
R2001	401 038 2210	MT-GLAZE	27K	JA	1/10W
R2003	401 037 6813	MT-GLAZE	12K	JA	1/10W
R2004	401 037 7810	MT-GLAZE	150	JA	1/10W
R201	401 039 0413	MT-GLAZE	8.2K	JA	1/10W
R202	401 037 5717	MT-GLAZE	100K	JA	1/10W
R203	401 037 5212	MT-GLAZE	100	JA	1/10W
R204	401 037 5212	MT-GLAZE	100	JA	1/10W
R205	401 037 5212	MT-GLAZE	100	JA	1/10W
R213	401 038 7710	MT-GLAZE	5.6K	JA	1/10W
R214	401 038 2111	MT-GLAZE	2.7K	JA	1/10W
R218	401 015 2744	CARBON	1K8	JA	1/4W
R222	401 013 7335	CARBON	120K	JA	1/4W
R223	401 026 4625	CARBON	33K	JA	1/6W
R224	401 012 5748	CARBON	1K	JA	1/4W
R226	401 037 5717	MT-GLAZE	100K	JA	1/10W
R227	401 024 7430	CARBON	10K	JA	1/6W
R231	401 037 5014	MT-GLAZE	0.000	ZA	1/10W
R241	401 037 5014	MT-GLAZE	0.000	ZA	1/10W
R243	401 024 9325	CARBON	1K2	JA	1/6W
R251	401 037 5014	MT-GLAZE	0.000	ZA	1/10W
R252	401 037 5618	MT-GLAZE	10K	JA	1/10W
R253	401 024 7430	CARBON	10K	JA	1/6W
R271	401 016 2644	CARBON	220	JA	1/4W
R351	401 024 6720	CARBON	100	JA	1/6W
R352	401 037 5816	MT-GLAZE	1M	JA	1/10W
R356	401 037 5212	MT-GLAZE	100	JA	1/10W
R357	401 037 5618	MT-GLAZE	10K	JA	1/10W
R361	401 038 5419	MT-GLAZE	390K	JA	1/10W
R363	401 038 0810	MT-GLAZE	22K	JA	1/10W
R364	401 037 5212	MT-GLAZE	100	JA	1/10W
R365	401 038 6416	MT-GLAZE	4.7K	JA	1/10W
R371	401 016 2644	CARBON	220	JA	1/4W

Ref. No.	Part No.	Description			
R429	402 068 0204	WIRE WOUND	10	JA	5W
R432	401 037 5410	MT-GLAZE	1K	JA	1/10W
R433	401 007 1134	CARBON	1K	JA	1/2W
R434	401 009 9346	CARBON	390	JA	1/2W
R444	401 058 3706	OXIDE-MT	1K	JA	1W
R447	401 026 9927	CARBON	4K7	JA	1/6W
R448	401 009 5843	CARBON	330	JA	1/2W
R463	401 024 9325	CARBON	1K2	JA	1/6W
R464	401 014 4145	CARBON	1K5	JA	1/4W
R465	401 038 7918	MT-GLAZE	560K	JA	1/10W
R468	401 025 4220	CARBON	1K8	JA	1/6W
R469	401 027 5928	CARBON	68K	JA	1/6W
R471	401 025 1625	CARBON	1K5	JA	1/6W
R472	401 027 0329	CARBON	47K	JA	1/6W
R473	401 022 1935	CARBON	680	JA	1/4W
R474	401 009 0927	CARBON	270	JA	1/2W
R480	401 027 0329	CARBON	47K	JA	1/6W
R481	401 064 5305	OXIDE-MT	1.5	JA	2W
R491	401 008 3711	CARBON	2.2	JA	1/2W
R495	401 025 4923	CARBON	180K	JA	1/6W
R496	401 027 2620	CARBON	5K6	JA	1/6W
R501	401 020 2053	CARBON	4.7K	JA	1/4W
R502	401 026 8128	CARBON	4.7	JA	1/6W
R505	401 027 5522	CARBON	6K8	JA	1/6W
R506	401 025 1625	CARBON	1K5	JA	1/6W
R507	401 027 8127	CARBON	82	JA	1/6W
R508	401 026 1020	CARBON	2K7	JA	1/6W
R509	401 057 6807	OXIDE-MT	0.68	JA	1W
R511	401 062 1200	OXIDE-MT	470	JA	1W
R513	401 058 3706	OXIDE-MT	1K	JA	1W
R514	401 025 5425	CARBON	2R2	JA	1/4W
⚠ R601	401 008 8627	CARBON	220K	JA	1/2W
R602	402 060 8109	WIRE WOUND	3.9	KA	5W
R611	401 027 2620	CARBON	5K6	JA	1/6W
R615	401 016 4836	CARBON	22K	JA	1/4W
R617	401 024 7024	CARBON	1K	JA	1/6W
R619	401 016 1538	CARBON	22	JA	1/4W
R620	401 007 5815	CARBON	120K	JA	1/2W
R621	401 007 5815	CARBON	120K	JA	1/2W
R622	401 014 5241	CARBON	15K	JA	1/4W
R623	401 026 1020	CARBON	2K7	JA	1/6W
R624	401 069 6208	OXIDE-MT	82	JA	2W
R625	401 069 1708	OXIDE-MT	68	JA	2W
R626	401 018 3411	CARBON	3.3K	GA	1/4W
⚠ R628	402 000 8602	SOLID	5.6M	KA	1/2W
⚠ R629	402 000 8602	SOLID	5.6M	KA	1/2W
R635	401 012 8145	CARBON	100K	JA	1/4W
R636	401 019 7804	CARBON	4.3K	JA	1/4W
R637	401 015 4738	CARBON	180K	JA	1/4W
R638	401 061 4400	OXIDE-MT	33K	JA	1W
R639	401 024 9721	CARBON	12K	JA	1/6W
R642	401 059 3903	OXIDE-MT	1.5K	JA	1W
R645	401 065 9609	OXIDE-MT	18	JA	2W
R646	401 025 7825	CARBON	2K2	JA	1/6W
R651	401 012 7049	CARBON	10K	JA	1/4W
R652	401 019 1941	CARBON	3K9	JA	1/4W
R661	401 012 7049	CARBON	10K	JA	1/4W
R662	401 064 6302	OXIDE-MT	10	JA	2W
R663	401 013 5341	CARBON	1K2	JA	1/4W
R666	401 008 0215	CARBON	18	JA	1/2W
R681	401 012 7049	CARBON	10K	JA	1/4W
R686	401 016 5843	CARBON	220K	JA	1/4W
R687	401 021 5033	CARBON	560K	JA	1/4W
R688	401 012 7049	CARBON	10K	JA	1/4W
R689	401 025 8228	CARBON	22K	JA	1/6W
R812	401 038 0711	MT-GLAZE	2.2K	JA	1/10W
R813	401 038 5112	MT-GLAZE	3.9K	JA	1/10W
R814	401 038 3613	MT-GLAZE	3.3K	JA	1/10W
R816	401 038 0711	MT-GLAZE	2.2K	JA	1/10W
R817	401 037 5618	MT-GLAZE	10K	JA	1/10W
R818	401 038 0810	MT-GLAZE	22K	JA	1/10W
R819	401 038 6515	MT-GLAZE	47K	JA	1/10W

Ref. No.	Part No.	Description
R821	401 037 5212	MT-GLAZE 100 JA 1/10W
R822	401 037 5618	MT-GLAZE 10K JA 1/10W
R823	401 039 0413	MT-GLAZE 8.2K JA 1/10W
R824	401 026 4625	CARBON 33K JA 1/6W
R826	401 037 6714	MT-GLAZE 1.2K JA 1/10W
R827	401 038 5112	MT-GLAZE 3.9K JA 1/10W
R828	401 038 3712	MT-GLAZE 33K JA 1/10W
R831	401 037 5212	MT-GLAZE 100 JA 1/10W
R832	401 037 6813	MT-GLAZE 12K JA 1/10W
R833	401 039 0512	MT-GLAZE 82K JA 1/10W
R834	401 038 6416	MT-GLAZE 4.7K JA 1/10W
R836	401 037 6714	MT-GLAZE 1.2K JA 1/10W
R837	401 038 6515	MT-GLAZE 47K JA 1/10W
R838	401 037 8015	MT-GLAZE 15K JA 1/10W
R839	401 038 6416	MT-GLAZE 4.7K JA 1/10W
R841	401 038 0810	MT-GLAZE 22K JA 1/10W
R842	401 018 2840	CARBON 330 JA 1/4W
R843	401 037 5618	MT-GLAZE 10K JA 1/10W
R844	401 037 5618	MT-GLAZE 10K JA 1/10W
R846	401 020 2053	CARBON 4.7K JA 1/4W
R847	401 012 7049	CARBON 10K JA 1/4W
R848	401 020 2053	CARBON 4.7K JA 1/4W
R852	401 012 5748	CARBON 1K JA 1/4W
R856	401 016 4836	CARBON 22K JA 1/4W
R861	401 038 2111	MT-GLAZE 2.7K JA 1/10W
R862	401 038 0810	MT-GLAZE 22K JA 1/10W
R863	401 038 0810	MT-GLAZE 22K JA 1/10W
R864	401 037 5410	MT-GLAZE 1K JA 1/10W
R865	401 038 6416	MT-GLAZE 4.7K JA 1/10W
R866	401 038 6416	MT-GLAZE 4.7K JA 1/10W
R867	401 038 6416	MT-GLAZE 4.7K JA 1/10W
R868	401 037 6714	MT-GLAZE 1.2K JA 1/10W
R869	401 038 2210	MT-GLAZE 27K JA 1/10W
R870	401 038 0810	MT-GLAZE 22K JA 1/10W
R871	401 038 6416	MT-GLAZE 4.7K JA 1/10W
R872	401 038 3712	MT-GLAZE 33K JA 1/10W
R873	401 038 6416	MT-GLAZE 4.7K JA 1/10W
R874	401 037 5618	MT-GLAZE 10K JA 1/10W
R875	401 038 7710	MT-GLAZE 5.6K JA 1/10W
R876	401 037 5618	MT-GLAZE 10K JA 1/10W
R877	401 039 0413	MT-GLAZE 8.2K JA 1/10W
R878	401 037 7919	MT-GLAZE 1.5K JA 1/10W
R879	401 012 7049	CARBON 10K JA 1/4W
R881	401 038 2210	MT-GLAZE 27K JA 1/10W
R883	401 020 0841	CARBON 470 JA 1/4W
R884	401 038 2111	MT-GLAZE 2.7K JA 1/10W
R885	401 038 5112	MT-GLAZE 3.9K JA 1/10W
R887	401 038 5112	MT-GLAZE 3.9K JA 1/10W
R891	401 038 6416	MT-GLAZE 4.7K JA 1/10W
R892	401 038 6416	MT-GLAZE 4.7K JA 1/10W
R895	401 037 6714	MT-GLAZE 1.2K JA 1/10W

VARIABLE RESISTOR

VR361	645 006 5422	VR,SEMI,10K N
VR461	645 006 5606	VR,SEMI,4.7K N
VR501	645 006 5408	VR,SEMI,100 N
VR631	645 006 5514	VR,SEMI,2.2K N

TRANSFORMER

T431	610 000 1077	DRIVE TRANS
⚠ T471	645 021 2741	TRANS,FLYBACK
⚠ T611	645 007 7494	TRANS,POWER,PULSE

COIL

L1003	645 001 4550	PEAKING COIL 10UHK
L1006	645 001 4550	PEAKING COIL 10UHK
L1020	403 049 4204	ELECT 10U M 50V
L1030	403 067 7895	MT-COMPO 0.47 J 50V
L152	645 003 8334	PEAKING COIL 18UHK 26
L201	645 003 8518	PEAKING COIL
L202	645 003 8518	PEAKING COIL
L203	645 003 8518	PEAKING COIL

Ref. No.	Part No.	Description
L431	645 008 5628	INDUCTOR,1U M
L444	610 000 1046	LINEARITY COIL
L444P1	645 008 4058	TERMINAL PLUG
L444P2	645 008 4058	TERMINAL PLUG
L444P3	645 008 4058	TERMINAL PLUG
L444P4	645 008 4058	TERMINAL PLUG
L445	610 219 0342	COIL
L445P1	645 008 4058	TERMINAL PLUG
L461	610 031 1367	INDUCTOR
L462	610 000 0261	COIL
L521	645 008 1286	PEAKING COIL
⚠ L601	645 012 3337	LINE FILTER
L607	610 237 1000	PIPE CORE
L608	610 237 1000	PIPE CORE
L615	645 002 4511	CORE,PIPE
L801	645 003 8549	PEAKING COIL
L841	645 008 2962	PEAKING COIL 5.6UH K
L871	645 008 2962	PEAKING COIL 5.6UH K
L881	645 001 4543	PEAKING COIL

DIODE

D001	408 007 8607	DIODE 1N4148
D002	408 007 8607	DIODE 1N4148
D1007	407 063 8319	ZENER DIODE MTZJ11C
D1011	407 063 8319	ZENER DIODE MTZJ11C
D1015	407 063 8319	ZENER DIODE MTZJ11C
D1016	407 063 8319	ZENER DIODE MTZJ11C
D1019	407 063 8319	ZENER DIODE MTZJ11C
D1020	407 063 8319	ZENER DIODE MTZJ11C
D1021	407 012 4416	DIODE 1SS133-T-77
D135	407 063 8319	ZENER DIODE MTZJ11C
D1910	407 116 6504	LED SLP-181B-51
D1910A	610 222 0322	LED HOLDER-G2CA-A
D221	407 012 4416	DIODE 1SS133-T-77
D222	408 007 8607	DIODE 1N4148
D251	407 012 4416	DIODE 1SS133-T-77
D252	407 012 4416	DIODE 1SS133-T-77
D253	407 012 4416	DIODE 1SS133-T-77
D254	407 012 4416	DIODE 1SS133-T-77
D271	407 053 6407	ZENER DIODE MTZ5.1C-T-77
D351	407 053 8708	ZENER DIODE MTZ9.1A-T-77
D352	407 005 7328	DIODE EM01Z
D361	407 063 8319	ZENER DIODE MTZJ11C
D441	407 095 8001	DIODE ERD07-15L
D442	407 006 4108	DIODE ERB44-04V1
D445	407 012 4416	DIODE 1SS133-T-77
D446	407 012 4416	DIODE 1SS133-T-77
D447	407 053 8104	ZENER DIODE MTZ7.5C-T-77
D465	407 012 4416	DIODE 1SS133-T-77
D466	407 164 780	ZENER DIODE MTZT-77-20A
D469	407 007 7415	DIODE EU1
D491	407 007 7415	DIODE EU1
D491	407 007 6616	DIODE ES1
D495	408 007 8607	DIODE 1N4148
D501	407 005 7328	DIODE EM01Z
D603	407 009 6921	DIODE RM11C
D604	407 009 6921	DIODE RM11C
D605	407 009 6921	DIODE RM11C
D606	407 009 6921	DIODE RM11C
D614	408 007 8607	DIODE 1N4148
⚠ D615A	407 173 2907	PHOTO COUPLE PC123F2
D616	408 007 8607	DIODE 1N4148
D617	407 007 6616	DIODE ES1
D618	408 007 8607	DIODE 1N4148
D619	407 053 8302	ZENER DIODE MTZ8.2A-T-77
D631	407 007 7712	DIODE EU2A
D633	407 007 7613	DIODE EU2
D634	407 007 7613	DIODE EU2
D635	407 007 7613	DIODE EU2
D641	407 053 7503	ZENER DIODE MTZ6.8A
D643	408 007 8607	DIODE 1N4148
D644	408 007 8607	DIODE 1N4148

Ref. No.	Part No.	Description
D645	408 007 8607	DIODE 1N4148
D646	407 053 3109	ZENER DIODE MTZ12A-T-77
D649	408 007 8607	DIODE 1N4148
D661	407 005 8612	DIODE ERA15-02 26MM
D669	408 007 8607	DIODE 1N4148
D683	408 007 8607	DIODE 1N4148
D685	407 053 7503	ZENER DIODE MTZ6.8A
D861	407 012 4416	DIODE 1SS133-T-77
D862	408 007 8607	DIODE 1N4148
D871	408 007 8607	DIODE 1N4148
D872	407 055 7927	ZENER DIODE RD3.6EL

MISCELLANEOUS

A101	610 273 9329	VIDEO IN BRACKET MONITOR
A101A	SKZZ0079	BNC SOCKET KY-7031
A1901	645 028 1044	REMO REC SPS-443-1-E
⚠ F601	423 022 2102	FUSE 250V 4.0A
F601-A1	645 000 5077	HOLDER,FUSE
F601-A2	645 000 5077	HOLDER,FUSE
K1001	610 273 9336	VIDEO/AUDIO BRKT MONITOR
K1001A	SKZZ0079	BNC SOCKET KY-7031
K1001B	SKZZ0080	RCA SOCKET RS-104-01
K1001C	SKZZ0080	RCA SOCKET RS-104-01
KR-1	645 008 4058	TERMINAL PLUG
KR-2	645 008 4058	TERMINAL PLUG
KR-3	645 008 4058	TERMINAL PLUG
KSC	645 008 4058	TERMINAL PLUG
⚠ PS601	408 013 3801	TH PTH451C262BF140M270
SW1901	610 011 2698	SWITCH,PUSH
SW1902	610 011 2698	SWITCH,PUSH
SW1903	610 011 2698	SWITCH,PUSH
SW1904	610 011 2698	SWITCH,PUSH
SW501	610 011 2728	SWITCH,LEVER 1P-3T
⚠ SW601	645 024 0607	PUSH SW POWER SDDFC3
X201	645 018 9050	OSC,CRYSTAL 4.43MHZ
X871	645 018 9593	OSC,CRYSTAL 12MHZ

ASSY,PWB,CRT F4ZWV 1AA0B10H023EB

TRANSISTOR

Q701	405 041 6507	TR 2SC2621-D-RA
Q711	405 041 6507	TR 2SC2621-D-RA
Q721	405 041 6507	TR 2SC2621-D-RA
Q741	406 007 1901	TR JC556A

CAPACITOR

C701	403 073 6413	CERAMIC	470P K 50V
C711	403 073 6413	CERAMIC	470P K 50V
C721	403 073 6413	CERAMIC	470P K 50V
C731	403 077 2728	CERAMIC	1000P P 2K

RESISTOR

R701	401 018 2840	CARBON	330 JA 1/4W
R702	401 017 1844	CARBON	2K7 JA 1/4W
R703	401 012 5748	CARBON	1K JA 1/4W
R704	401 065 4604	OXIDE-MT	12K JA 2W
R705	401 009 6622	CARBON	3.3K JA 1/2W
R711	401 018 2840	CARBON	330 JA 1/4W
R712	401 017 1844	CARBON	2K7 JA 1/4W
R713	401 016 3849	CARBON	2.2K JA 1/4W
R714	401 065 4604	OXIDE-MT	12K JA 2W
R715	401 009 6622	CARBON	3.3K JA 1/2W
R721	401 018 2840	CARBON	330 JA 1/4W
R722	401 017 1844	CARBON	2K7 JA 1/4W
R723	401 015 2744	CARBON	1K8 JA 1/4W
R724	401 065 4604	OXIDE-MT	12K JA 2W
R725	401 009 6622	CARBON	3.3K JA 1/2W
R727	401 020 0841	CARBON	470 JA 1/4W
R741	401 020 2053	CARBON	4.7K JA 1/4W
R742	401 018 3857	CARBON	3K3 JA 1/4W
R744	401 018 2840	CARBON	330 JA 1/4W

VARIABLE RESISTOR

VR701	645 003 5722	VR,SEMI,4.7K N
VR702	645 003 5647	VR,SEMI,1K N
VR711	645 003 5722	VR,SEMI,4.7K N
VR712	645 003 5647	VR,SEMI,1K N
VR721	645 003 5722	VR,SEMI,4.7K N

MISCELLANEOUS

K7M	645 008 4058	TERMINAL PLUG
K7P	645 008 7288	HOUSING PLUG 5P
K7Q	645 008 7264	HOUSING PLUG 3P
⚠ K701	610 233 7990	CRT SOCKET
L705	610 078 5946	PIPE CORE

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description

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